

Work Order ID 122318

Monday, July 14, 2014 1:55:49 PM

122318

Page 1

Ship Wednesday

Item ID: D4970-041

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Windshield Deflector Assembly

Start Date: 7/21/14 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/21/14 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MLS Date: 14-07-15

Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4970	C								
100	Pick Kit	0.00							DAS 41 9-89
100						2			
Packaging	Memo	0.00							15-3-22
Packaging									
110		0.00							DAS 41 9-89
110						2			
Small Fab	Memo	0.00							15-3-22
Small Fab	- ASSEMBLE AS PER DWG.								
	- APPLY RTV LOCKTITE BETWEEN FAYING SURFACE AS PER DWG.								
	RTV LOCKTITE B/N: <u>125637</u>								
	EXP: <u>5/15</u>								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Page 2

Reference:

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

MAR 20 2015

B/N: 131121

15-3-23

Quality Control

MAR 23 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Page 3

Item ID: D4970-041

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Windshield Deflector Assembly

Start Date: 7/21/14 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 7/21/14 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Identify as per dwg & Stock Location: _____	0.00							
150									
Packaging	Memo	0.00							
Packaging									
160	QC21- Final Inspection - Work Order Release	0.00							
160									
QC	Memo	0.00							
Quality Control									

DAS
27
9-00

MAR 25 2015

MW 150325

MF
15-3-25

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

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122318

D4970-041

Required Date: 7/21/14

Required Qty: 1.00

Comments: IPP REV:A 13.11.14 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4970-1		Manufactured	No				Each	0.0000		1		DAS	
D4970-1					124624				**			41	15-3-22
Windshield Deflector - Lower										9-89			
D4970-3		Manufactured	No				Each	1.0000		1		DAS	
D4970-3									**			41	15-3-22
Windshield Deflector - Upper										9-89			
					126255					2			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				prelim		1							
				119048		1							
D4970-5		Manufactured	No				Each	0.0000		2		DAS	
D4970-5					122216				**	2		41	15-3-22
Doubler										9-89			
MS20470AD6-12		Purchased	No		123022		Each	350.0000		2		DAS	
MS20470AD6-12									**			41	15-3-22
Rivet										9-89			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST310		350							
				m127304		350				12			

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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ITEM	QTY -041	P/N	DESCRIPTION
1	X	D4970-041	WINDSHIELD DEFLECTOR ASSY
2	1	D4970-1	WINDSHIELD DEFLECTOR - LOWER
3	1	D4970-3	WINDSHIELD DEFLECTOR - UPPER
4	2	D4970-5	DOUBLER
5	6	MS20470AD6-12	RIVET, SOLID, PAN HEAD

SEE COPY
 RETURN TO
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 122318 MCL5
 14-11-24

RELEASED
 2014-06-11
m

D4970-041 WINDSHIELD DEFLECTOR ASSY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: PRIME IAW MIL-P-23377J TYPE I CLASS N; 1-2 MIL MAX, AS PER QSI 005. APPLY FINISH AFTER ASSEMBLY
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4970-041", REVISION, BATCH NUMBER AND DATE OF MANUFACTURE, USING AN X-TENSION STAMP, PER QSI 044 METHOD 6.2
- 7) WEIGHT: 3.14 lbs (1.44 kgs)
- 8) APPLY RTV SEALANT LOCTITE 598 TO FAYING SURFACES

C	REVISED D4970-1 (ZN B4-3); ADDED DETAIL C (ZN C3-3); ADDED FOUR HOLES TO D4970-3 (ZN D6-5); REVISED HOLE DIMENSION FROM 0.191 TO 0.201 (ZN B4-5); REVISE NOTE 6) (ZN A8-1, A8-3, A8-4, A8-6)	AK	14.06.05
B	ADDED HOLES TO D4970-1 AND D4970-3. ADDED SHEET 5	AK	14.05.02
A	NEW ISSUE	DC	13.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	DC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	HS	DRAWING NO.	REV. C
MFG. APPR.	JLM	D4970	SHEET 1 OF 6
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	WINDSHIELD DEFLECTOR	NTS
DATE	14.06.05	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

APPROVED

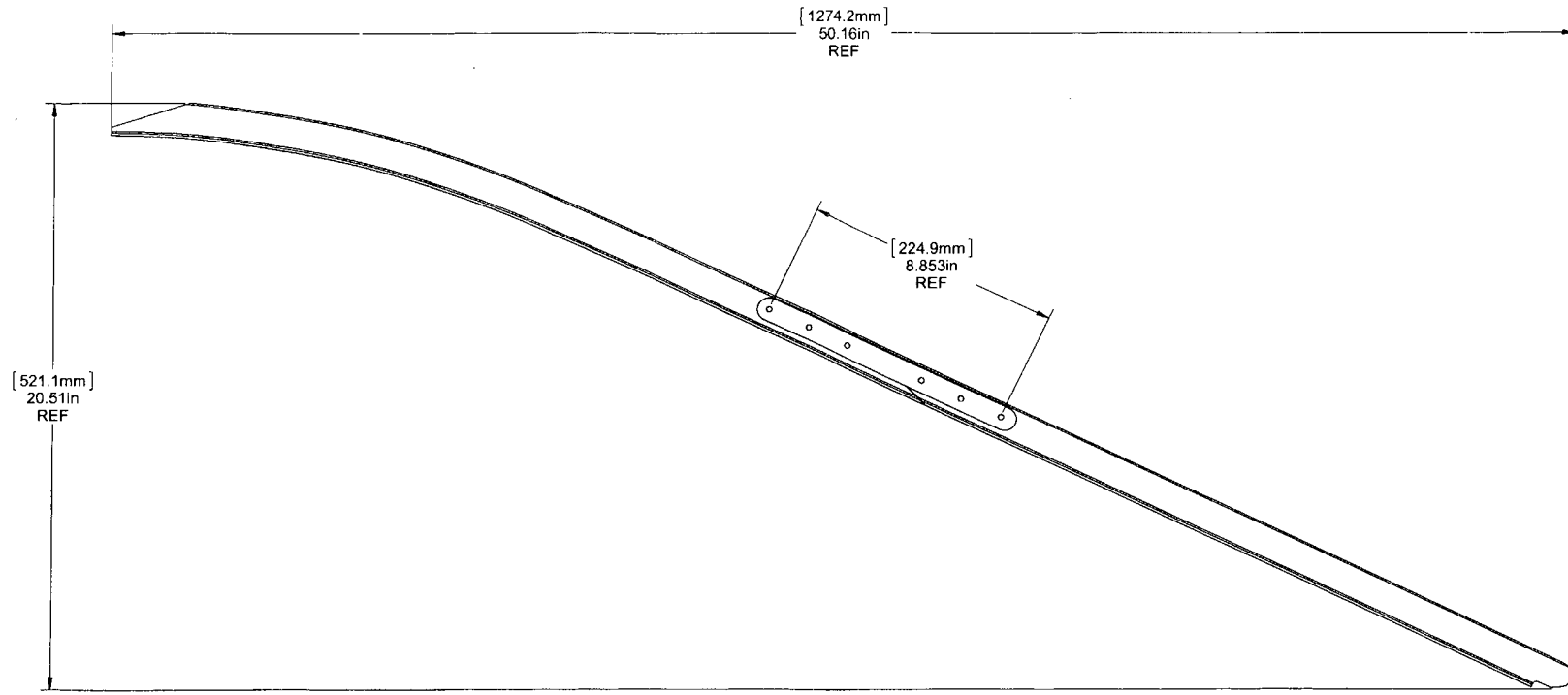
8 7 6 5 4 3 2 1

D

C

B

A



D4970-041 WINDSHIELD DEFLECTOR ASSY
AUXILIARY VIEW

RELEASED
2014-00-11

APPROVED

DESIGN	DC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	HS	DRAWING NO.	REV. C
MFG. APPR.	JLM	D4970	SHEET 2 OF 6
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	WINDSHIELD DEFLECTOR	NTS
DATE	14.06.05	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1